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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/682,094

10/09/2003

Poul Bach

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NOVOZYMES NORTH AMERICA, INC.
500 FIFTH AVENUE
SUITE 1600
NEW YORK, NY 10110

EXAMINER

METZMAIER, DANIEL S

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

08/06/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patents-US-NY@novozymes.com

Office Action Summary	Application No. 10/682,094	Applicant(s) BACH ET AL.	
	Examiner Daniel S. Metzmaier	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/18/2010 & 6/22/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-20 and 27-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-20 and 27-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/22/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-16, 18-20 and 27-38 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 March 2010 (Amendment) and 22 June 2010 (IDS) has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-16, 18-20 and 27-38 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods of contacting either dispersible materials with water, oil or aqueous liquids; or fully water soluble particulate materials contacted with oil; does not reasonably provide enablement for making particulate compositions by contacting a particulate starting material that is **fully water soluble material** (see independent claims) with liquid, *e.g.*, **water and aqueous liquid** (claims 13 and 14), to form a mixture that results in a particulate composition. The specification does not enable any person skilled in the art to which it pertains, or with

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which it is most nearly connected, to make the invention commensurate in scope with these claims.

Applicants process steps read on dissolution of solute materials in water or aqueous liquid, *i.e.*, dissolved and non-particulate. Applicants' specification does not adequately describe how to carry out the methods wherein the particulate starting materials is fully soluble in water when water or aqueous liquid is the liquid.

All the claims are generic to the liquid as water or aqueous liquid except claims 13, wherein water is claimed alternatively, or claim 14, wherein the liquid is aqueous.

It is noted, the instant examples disclose starting particulate materials including sodium sulfate with a number of other additives including but not limited to starch, cellulose, dextrin, and sorbitol with water as the liquid. The only starting material characterized with a particle size is the sodium sulfate. The solubility of sodium sulfate is ~ 28.1 grams / 100 ml water @ 25 °C. Assuming the examples are done at about room temperature, said exemplified material is not a **fully water soluble material** as now claimed.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-16, 18-20 and 27-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants' preamble in the independent claims is inconsistent with the scope of the claimed subject matter sought for patent or the claims are incomplete regarding the

method of preparing a particulate material. It is unclear how a particulate starting material that is **fully water soluble material** (see independent claims) and is mixed with liquid, e.g., **water and aqueous liquid** (claims 13 and 14), to form a mixture can possibly result in a particulate composition without some other processing step.

It is unclear how applicants define the terms: **fully water soluble**.

All the claims are generic to the liquid as water or aqueous liquid except claims 13, wherein water is claimed alternatively, or claim 14, wherein the liquid is aqueous. Applicants claims do not specify the conditions the particulate materials is a **fully water soluble material**.

Claim 15 is indefinite since it is unclear how the particulate material is both fully water soluble and a saturated solution. Saturation requires a solubility limit. Thus, a particulate that forms a saturated aqueous solution would not be fully water soluble.

Response to Arguments

6. Applicant's arguments filed 03 July 2009 have been fully considered but they are not persuasive.

7. Applicants (pages 7 and 8) assert the specification clearly provides for water soluble materials and fully water soluble materials. The claims are directed to methods and not compositions. The methods require more than the mere statement of the possible materials that may be employed in the methods but that said methods employing said materials be disclosed so that those having skill in the art may perform the method. Furthermore, the use of said materials in said methods be consistent with the teaching of the invention as a whole. This is not true for the claims as now set forth.

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The claims are non-specific regarding the liquid. The claims clearly read on dissolution of a solute in water. Since the particulate is now claimed as a **fully water soluble material**, the methods are inconsistent with the use of water or aqueous liquid and the preamble requiring preparation of a particulate composition.

8. Applicant's arguments with respect to claims 1-16, 18-20 and 27-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art has been provided but the claims are deemed too unclear for patentability analysis.

Flesher et al, US 4,940,763, is directed to water soluble polymers and states (column 7, lines 1-25) the following regarding flocs of polymer particles:

The invention is of **particular value when the flocculated suspension is subjected to shear** either as a preliminary to or during dewatering, **or during some other process**, and accordingly preferred processes of the invention include the application of shear to the flocculated suspension, often prior to or during dewatering of the suspension. Flocs formed with conventional linear flocculant polymers have low stability to shear and then they are sheared they break down into small fines that cannot easily be reflocculated into the flocs. For instance if conventional flocculated dispersions are sheared this results in the formation of a large proportion of fines that do not easily reflocculate within the dispersion and that cannot easily be separated from the liquid phase of the dispersion. Thus dewatering is poor. **In the invention however it is possible to obtain flocs which are much more shear stable and, as mentioned, are larger.** Upon applying shear these flocs may be broken down in size but **they are broken down primarily to smaller, shear stable, flocs in preference to the unwanted fines obtained using conventional flocculants.** Accordingly, even though the floc size is reduced, the dewatering and other properties of the flocculated dispersion are still satisfactory, and are much better than those obtainable with conventional flocculants. (Emphasis added).

See also US 3,334,070 and 6,680,288.

The newly cited references lack a “fully water soluble” component required by the claims.

US 6,171,699 is directed to granular silica, which forms an “aqueous suspension”. Said ‘699 granular silica would not have been expected to have been “fully water soluble”.

WO 95/31973 (page 8, lines 12-26) disclose wet milling processes, wherein the substance to be milled must be poorly soluble (less than about 10 mg/ℓ, preferably less than 1 mg/ℓ) and dispersible in at least one liquid medium, *e.g.*, water. WO ‘973 suggest the use of other liquid media materials.

EP 1 038 954 A1 discloses making enzyme particles, wherein the enzyme (C) and water-soluble binder (B) are solubilized in the method and the starting materials do not retain their particle form as claimed.

10. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Daniel S. Metzmaier/
Primary Examiner, Art Unit 1796**

DSM